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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,717	08/09/2001	Richard Fischbeck	00-106	6856
24124	7590	11/17/2005	EXAMINER A, PHI DIEU TRAN	
BOHAN, MATHERS & ASSOCIATES, LLC PO BOX 17707 PORTLAND, ME 04112-8707			ART UNIT 3637	
PAPER NUMBER				
DATE MAILED: 11/17/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/928,717

Applicant(s)

FISCHBECK, RICHARD

Examiner

Phi D. A

Art Unit

3637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-38 and 42-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-38, 42-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 32-36, 42-44, 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlain (4270320) in view of Tuitt (3785066).

Chamberlain shows a geodesic structure comprising a plurality of conical elements (figure 3), each conical element of the plurality of conical elements being defined by a cone base, a cone wall and a vertex (located at 66), at least one line of the cone wall of a first conical element (figure 1 designated by part 44 left) extends **substantially** parallel to at least one line in the cone wall of an adjacent conical element (figure 1 the part designated by 36 bottom) so as to form a straight strut between the vertex of the first conical element and the adjacent conical element, the plurality of conical elements being arranged to form a shell, the plurality of conical elements being arranged such that a distance and a direction of displacement between any two cone bases of adjacent placed conical elements being infinitely variable between a minimum limit and a maximum limit, the conical element is a circular cone, and the cone base being a circular base, the conical elements are placed in an overlapping arrangement wherein a portion of the circular base of a first conical element overlaps with a portion of the cone wall of an adjacent element so as to form said shell, the conical elements are arranged such that said vertex of circular cone points outward from the shell, the portion of the circular base of said first circular cone overlaps a portion of the cone wall of at least three adjacent conical elements so as to form

Art Unit: 3637

the shell having a closed surface, the overlapping arrangement further including an overlap of a portion of the circular base of the first conical element that overlaps with at least a second conical element (44 left, figure 1), a third conical element (44 right, figure 1), a fourth element (36 bottom, figure 1), a first amount of overlap between the first conical element and the second conical element forms a first strut distance and direction between the vertexes of the first conical element and the second conical element, a second amount of overlap between the first conical element and the third conical elements forms a second strut distance and direction between the vertexes of the first conical element and third conical element, a third amount of overlap between the first conical element and the fourth conical element forms a third strut distance and direction between the vertexes of the first conical element and said fourth conical element, the first strut distance and direction is any distance and direction between the minimum and said maximum limits, the second strut distance and direction is any distance and direction between said minimum and said maximum limits, the third strut distance is any distance and direction between the minimum and said maximum limits, an opening (94) is formed in the shell to provide means to access an inner space of the shell, the conical element having an angular deficit α that defines an amount of taper of the cone wall between the end base and the vertex, the angular deficit α of the conical element varies in magnitude from the angular deficit α of an adjacent conical element (the angular difference results per the difference between the pentagonal vs. hexagonal), the plurality of conical elements including two groups of conical elements, each group having different magnitude of said angular deficit α , the conical elements of the two groups are arranged in an alternating pattern (figure 1 shows the alternating pattern), a skin (102, figure 7) placed over the shell, the conical element being constructed of

Art Unit: 3637

sheet material from a group of material consisting of composite material and polymeric material (col 3 lines 47-55), fastening means including threaded fasteners (bolts 58, col 6 line 34) for attaching the plurality of conical elements to one another, the conical element having an element length defined by a length of the cone wall from the cone base to the vertex.

Chamberlain does not show the cone wall being defined by straight lines that extend from the base and intersect each other at the vertex.

Tuitt shows conical elements (figures 23-34) having a cone base, a cone wall and a vertex, the cone wall defined by straight lines that extend from the base and intersect each other at the vertex.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chamberlain's structures to show the conical element having the cone wall defined by straight lines that extend from the base and intersect each other at the vertex as taught by Tuitt because such a configuration would enable the easy formation of many different aesthetic structures as taught by Tuitt (col 6 lines 5-9).

Chamberlain as modified by Tuitt shows at least one straight line of the cone wall of a first conical element extends substantially parallel to at least one straight line in the cone wall of an adjacent conical element so as to form a straight strut between the vertex of the conical element and the adjacent conical element.

3. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlain (4270320) in view of Tuitt (3785066).

Chamberlain as modified shows all the claimed limitations except for the maximum limit being slightly less than a sum of said element lengths of any two adjacent conical elements.

Art Unit: 3637

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chamberlain's modified structure to show the maximum limit being slightly less than a sum of said element lengths of any two adjacent conical elements because it would have been an obvious matter of design choice to show the maximum limit being slightly less than a sum of the lengths of two adjacent elements since such a modification would have involved a mere change in the size of a component, a change in size is generally recognized as being within the level of ordinary skill in the art, *In re Rose*, 105 USPQ 237 (CCPQ 1955).

4. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlain (4270320) in view of Truitt (3785066).

Chamberlain as modified shows all the claimed limitations except for the minimum limit is slightly greater than one-half of a sum of the element length of any two adjacent conical elements.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chamberlain's modified structure to show the minimum limit is slightly greater than one-half of a sum of the element length of any two adjacent conical elements because it would have been an obvious matter of design choice to show the minimum limit is slightly greater than one-half of a sum of the element length of any two adjacent conical elements since such a modification would have involved a mere change in the size of a component, a change in size is generally recognized as being within the level of ordinary skill in the art, *In re Rose*, 105 USPQ 237 (CCPQ 1955).

Art Unit: 3637

5. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlain (4270320) in view of Tuitt (3785066) as applied to claim 32 above and further in view of Fuller (2682235).

Chamberlain shows all the claimed limitations except for the conical elements being arranged with said narrow end of some of the conical element facing inward and with said narrow end of other ones of the conical elements facing outward.

Fuller (figures 11-12) shows elements being arranged with narrow end of some of the conical elements facing inward (figure 11) and with the narrow end of other ones of the conical elements facing outward (figure 12) to form a spherical structure.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chamberlain's structure to show the conical elements being arranged with said narrow end of some of the conical element facing inward and with said narrow end of other ones of the conical elements facing outward as taught by Fuller because it enables the formation of a domical structure with a broader base with the same given height, and the varying contour of the elements would also increase the aesthetic appearance of the domical structure.

Response to Arguments

6. Applicant's arguments filed 8/18/05 have been fully considered but they are not persuasive.

Applicant states that Chamberlain is spherical and not conical, examiner respectfully points out that the Chamberlain structure as explained in the previous office action satisfies applicant's claimed limitations to the structure being conical. The argument is thus moot.

Art Unit: 3637

Applicant is correct to state that Chamberlain does not show a straight line from the base to the vertex, and this deficiency, however, is overcome per the reference Tuitt that teaches conical structures with straight lines from the base to the vertex.

Applicant's argument that Tuitt does not show the straight strut connecting the vertexes is moot, as Chamberlain already shows the limitation.

With respect to applicant's arguments that the references do not show the limitations of claim 32, examiner respectfully disagrees. As pointed out above, the references when combined, shows all the claimed limitations. The argument is thus moot.

Also, to further clarify applicant's claimed limitation to the "straight strut", examiner respectfully points out that limitations as claimed do not require the "straight strut" being located on the outside of the conical structure either.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 3637

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phi D A whose telephone number is 571-272-6864. The examiner can normally be reached on Monday-Tuesday, Thursday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on 571-272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phi Dieu Tran A *PA*

11/4/05

LANNA MAI
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